DOCUMENT RESUME

ED 031 934 24 EM 007 311

By-Dieker, Richard J.; And Others

Repeated Self-Viewings on Closed-Circuit Television as it Affects Changes in Students' Awareness of Themselves as Speakers. Final Report.

Western Michigan Univ., Kalamazoo.
Spons Agency-Office of Education (DHEW), Washington, D.C. Bureau of Research.
Bureau No-BR-7-E-198
Pub Date 30 Sep 68
Contract-OEC-0-8-070198-2807
Note-63p.
EDRS Price MF-$0.50 HC-$3.25
Descriptors-Analysis of Variance, Closed Circuit Television, Identification (Psychological), Individual Development, *Perceptual Development, *Public Speaking, Self Actualization, Self Concept, *Self Congruence, *Self Evaluation, *Speech Instruction, Speech Skills, Statistical Analysis, Student Attitudes, Teaching Techniques, Video Tape Recordings

One hundred and thirteen students of general speech were assigned to an experimental group (54) and a control group (59), of which only the former could view themselves on a video tape-recorder. The hypothesis was that students would more easily evolve an actual self closer to their ideal self, would evolve a self-awareness which is more similar to the ratings of others, and would consider themselves more in personal evaluation terms and less in terms of group membership. All students gave the same speeches. Four experimental group speeches were videotaped. Instructors gave no critiques but instructors, observers, and students rated the speeches according to prescribed standards. Contrary to the hypothesis, the control group self-rating was closer to their ideal self-concept. However, the experimental group, in contrast to the control group, submitted ratings which highly correlated with the instructors' and observers' ratings. Neither group changed their ideal self-concepts and both groups moved equally toward considering themselves in personal evaluative terms. Self-confrontation may not be the best way to enhance the students' self-concept. The data was analyzed by means of three-way analysis of variance tests, "t" tests, and chi-square. (MM)

ED031934

Western Michigan University
Kalamazoo, Michigan

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

FINAL REPORT
Project No. 7-E-198
Contract No. OEC-0-8-070198-2807

REPEATED SELF-VIEWINGS ON CLOSED-CIRCUIT TELEVISION AS IT AFFECTS CHANGES IN STUDENTS' AWARENESS OF THEMSELVES AS SPEAKERS

Dr. Richard J. Dieker
Dr. Loren Crane
Dr. Charles T. Brown

Western Michigan University
Kalamazoo, Michigan

September 30, 1968

The research reported herein was performed pursuant to a contract with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

EM007311

TABLE OF CONTENTS

Abstract. 1

I. Rationale and Hypotheses. 3
Rationale and Related Research. 3
Importance of the Self-Concept to Interpersonal Behavior. 6
Hypotheses. 9

II. Method. 11
Subjects. 11
Procedures. 11
Experimental Variable 13
Criterion Variables 13
Rating of the Self-Concept. 13
"Who Am I?" Test. 14
Statistical Analysis. 14

III. Results 16

IV. Conclusions, Discussion, and Implications for Further Research. 36
Conclusions. 36
Discussion. 38
Implications for Further Research 42

V. Footnotes 45

VI. Appendices. 47
Appendix A Speaking Assignments. 47
Appendix B Self-Rating Questionnaire 51
Appendix C Development of Semantic Differential. 54
Appendix D Analysis of Variance Tables for Self-Ratings. 55

LIST OF TABLES

	Title	Page
Table 1.	Mean D^2 Scores Between Actual and Ideal Self Ratings on the Wisdom Factor for both Self-Viewing and Control Conditions at Five Time Periods	18
Table 2.	Mean Actual Self Ratings on the Wisdom Factor for both Self-viewing and Control Conditions at Five Time Periods.	19
Table 3.	Mean D^2 Scores Between Actual and Ideal Self Ratings on the Forcefulness Factor for both Self-Viewing and Control Conditions at Five Time Periods.	20
Table 4.	Mean Actual Self Ratings on the Forcefulness Factor for both Self-viewing and Control Conditions at Five Time Periods.	22
Table 5.	Mean D^2 Scores Between Actual and Ideal Self Ratings on the Pleasantness Factor for both Self-viewing and Control Conditions at Five Time Periods.	23
Table 6.	Mean Actual Self Ratings on the Pleasantness Factor for both Self-Viewing and Control Conditions at Five Time Periods.	24
Table 7.	Mean D^2 Scores between Actual and Ideal Self Ratings on the Authoritativeness Factor for both Self-Viewing and Control Conditions at Five Time Periods.	24
Table 8.	Mean Actual Self Ratings on the Authoritativeness Factor for both Self-Viewing and Control Conditions at Five Time Periods.	25
Table 9.	Mean Actual Self Ratings and Observer Ratings on the Wisdom Factor at Time 5 for both Self-Viewing and Control Conditions.	27
Table 10.	Mean Actual Self Ratings and Instructor Ratings on the Wisdom Factor at Time 5 for both Self-viewing and Control Conditions.	28
Table 11.	Mean Actual Self Ratings and Observer Ratings on the Forcefulness Factor at Time 5 for both Self-Viewing and Control Conditions.	29
Table 12.	Mean Actual Self Ratings and Instructor Ratings on the Forcefulness Factor at Time 5 for both Self-viewing and Control Conditions.	30

LIST OF TABLES

	Title	Page
Table 13.	Mean Actual Self Ratings and Observer Ratings on the Pleasantness Factor at Time 5 in the Self-viewing and Control Conditions.	31
Table 14.	Mean Actual Self Ratings and Instructor Ratings on the Pleasantness Factor at Time 5 for both Self-viewing and Control Conditions.	32
Table 15.	Mean Actual Self Ratings and Observer Ratings on the Authoritativeness Factor at Time 5 for both Self-viewing and Control Conditions.	32
Table 16.	Mean Actual Self Ratings and Instructor Ratings on the Authoritativeness Factor at Time 5 for both Self-viewing and Control Conditions.	33
Table 17.	Summary of the Changes from Pretest to Posttest in Responses to the "Who Am I?" Test for both Self-viewing and Control Conditions.	34

ABSTRACT

REPEATED SELF-VIEWINGS ON CLOSED-CIRCUIT TELEVISION AS IT AFFECTS CHANGES IN STUDENTS' AWARENESS OF THEMSELVES AS SPEAKERS

Dr. Richard J. Dieker, Dr. Loren Crane, Dr. Charles T. Brown

Western Michigan University

Rationale and hypotheses. The purpose of this experimental study was to determine the impact of repeated self-viewings on closed-circuit television on students' self-concepts. One of the objectives of a speech course is to develop in the student an "actual" self-concept which is more similar to his ideal self since previous research in speech and psychotherapy has indicated that actual-ideal self congruence is important to interpersonal relationships. Self-confrontation by means of videotape is one possible method ofnassisting the student to become more familiar with himself and hence able to define a more realistic actual as well as ideal self. It was hypothesized that with self-viewing, students would evolve an actual self which was more similar to their ideal than students without self-viewing. In addition, it was hypothesized that self-confrontation would help the student to evolve an awareness of himself which is closer to the ratings of others, and because of the insight gained from self-viewing, he would considerehimself more in personal evaluative terms and less in terms of references to group memberships.

Method. Six sections of general speech, taught by three instructors, were utilized in this experiment. One class of each instructor was randomly assigned to the experimental self-viewing group and one class was assigned to the control group. In all, there were 54 students in the experimental group and 59 students in the control group.

Students in both the experimental group and control group gave the same speeches during the course of one semester. In the experimental group, four speeches during the semester were recorded on videotape and played back to the students individually during the following class period; in the control group, the same speeches were given without self-viewing. Ratings of the actual and ideal self were made prior to the experiment and following each of the speaking assignments. The self concept scale measured four factors, forcefulness, wisdom, pleasantness and authoritativeness. At the end of the experiment, observers and instructors filled out a rating scale on each student. Students also filled out a twenty-statments "Who Am I?" test at the beginning and at the end of the semester. The data were analyzed by means of three-way analysis of variance tests, t tests, and chi- square.

Results. The congruency between ratings of the actual and ideal self increased significantly more during the semester in the control condition than in the self-viewing condition on three of the four

factors of the self-concept. The increase in congruency between the actual and ideal self was a function of an increase in ratings of the actual self. No significant changes occurred in either the experimental or control group in ratings of the ideal self. There was greater correspondence between self ratings and instructor ratings in the self-viewing condition than in the control condition on two of the four factors of the self concept. In the control condition, students rated themselves significantly higher than the instructors, whereas in the experimental condition, there was no significant difference between self ratings and instructor ratings. There was no significant difference between self ratings and student observer ratings in either the control or experimental groups. Changes in response to the "Who Am I?" test from group membership references to personal evaluative terms between the experimental and control groupddid not attain a satisfactory significance level. Both groups changed significantly in the direction of more personal evaluative terms at the end of the experiment.

Discussion. The self-confrontation experience, when combined with the kinds of speaking assignments used in the general speech course, helps the student to evolve a more realistic self-concept than the same assignments accomplished without self-viewing. Students' ratings of themselves without self-viewing tend to be higher than the instructors' ratings. It is possible that in order to maximize the positive impact of the self-viewing experience, some form of self-analysis should take place during the self-viewing. In the present study, the students watched themselves without any comments or evaluations of their speaking experience before, during, or after the self-viewing. The time of ratings could also account for part of the differences between the self-viewing and control condition.

Future self-confrontation research could profitably focus on such factors as the effect of self-analysis during self-viewing, either alone or with the assistance of an instructor or counselor, the delay between the actual experience and the self-viewing, the nature of the experience which is recorded, and the number of self-viewing experiences, both for a given assignment and for different assignments. In addition, the impact of self-confrontation on different personality types needs to be explored to determine under what conditions self-viewing has the greatest impact for various groups of persons.

Contribution to education. Self-confrontation by means of videotape is being used more and more in schools and colleges, not only in speech but in education, business, counseling, psychotherapy and speech pathology. The present study demonstrates that if the instructor's goal is to enhance the student's self-concept, then self-confrontation may not be the most successful method. On the other hand, the findings indicate that repeated self-confrontations help the student to evolve a self-concept which is closer to ratings of others, and would therefore give some encouragement to the use of the self-viewing experience for this purpose. Most of all, however, the findings of this study indicate that repeated self-viewing by means of videotape, by itself, does not have as much positive impact on students' self-concepts as doing the same assignments without self-viewing. The potential value of self-confrontation probably will not be realized until future research demonstrates the conditions under which self-confrontation has its greatest impact.

CHAPTER I

BACKGROUND FOR THE STUDY

Rationale and Related Research

One of the major objectives of a beginning speech course is to develop in the students an awareness of themselves as speakers which is closer to their ideal. As Krech, Crutchfield and Ballachey point out: "For most persons it becomes a major goal to achieve an 'actual' self which is as similar as possible to the ideal self. To the extent that the gap between actual-self and ideal-self is small, the individual feels a sense of enhancement of self-esteem."[1]

Through helping the student understand his capacities and limitations, the instructor can also help the student define a realistic conception of the ideal self. Much research supports George Herbert Mead's basic thesis that the self-concept is primarily a product of social interaction and is largely influenced by responses of others to the person.[2] Man views himself, then, and responds to himself as he observes others responding to him. Whyte, for example, found that when members of a particular group were expected to do poorly by their peers, the performance of the members decreased.[3] Apparently man is limited in developing a realistic concept of himself because he is unable to observe himself except as he assumes the roles of others by observing and interpreting their responses to him.

By the time a person reaches college he has evolved a fairly stable concept of himself as a speaker through his past history of

success and failure in speaking, and four or five speaking experiences during one semester using traditional informative and persuasive speeches do not significantly alter his self-concept as a speaker. In a study by Dieker and Jones, it was found that after four public speaking experiences in the classroom, the students' ratings of themselves as speakers had not changed significantly, regardless of the nature of the grades which were assigned to the speeches.[4] Written and oral criticisms evidently reinforce what the student already knows about himself as a speaker, and so his self-concept is still about the same at the end of a general speech course. In addition, in the above study, the self-concept ratings of the students were relatively low, with an average rating of about 11 on an 18 unit scale, and the ratings were fairly consistent across four dimensions of the self-concept as a speaker.

The central question explored in the present study is how effective the self-confrontation afforded by television is in altering the self-concept. Closed-circuit television reruns can be utilized in a speech course to enable the student to view himself as others see him, and through this self-viewing[5] the student may assess his strengths and weaknesses from a viewpoint otherwise not available to him.

Several studies related to the use of closed-circuit television in the speech classroom for self-viewing purposes have been reported. Frandsen, Larson and Knapp, utilizing self-confrontation techniques under television studio conditions found greater instructor-student

correlation of speaker evaluation on certain dimensions of speech behavior when playback was followed by instructor comments. This condition was compared with control conditions and experimental conditions where instructor comments occurred before the playback or simultaneous with it.[6] This study did not test for improvement in speaker behavior, or the improvement in actual self ratings with ideal self ratings, but demonstrated under what conditions student-instructor correspondence on ratings of the speaker were the higher in one self-viewing experience. Frandsen, et al., add: "Whether these results can be replicated with portable video tape decks and cameras in the usual classroom setting remains to be determined."[7] In another study, Hirschfeld used two videotaped speeches in an introductory speech course, one during the second or seventh week and the other during the last week of the course.[8] Her study investigated the correspondence of student, classmates and experts ratings of speech behavior. Hirshfeld concluded that "students analysed their own and each others' speaking skills fairly accurately."[9]

The present study improves on the previous research in several ways. First of all, a total of four self-viewing experiences are used instead of one or two as in the Frandsen and Hirshfeld studies. Pilot testing at Western Michigan University indicated that several self-viewing experiences are necessary to maximize the impact of self-confrontation, since the first self-confrontation is usually a shocking experience and most students need to become accustomed to viewing themselves. Second, the present study is carried out in a

normal classroom situation rather than in a television studio. On the basis of student interviews following pretesting in a television studio, it was found that much of the initial shock of self-viewing under studio conditions can be attributed to the unusual conditions found in a television studio, such as the bright lights, cameramen, moving cameras and directors, which are not encountered in the classroom. Third, the present study uses changes in the actual self concept, in relation to the ideal self concept, as the dependent measure, which can be considered an indication of student improvement. Previous studies have used only the correlation of student ratings of the self with instructor and peer ratings, and these correlations do not reveal whether the students have improved in either their speaking behavior or in their self-concepts.

Several studies utilizing self-confrontation as a tool in psychotherapy have been reported. Moore, Cherwell and West,[10] Kagan, Krathwohl and Miller[11] and Boyd and Sisney[12], all reported significantly better improvement in psychiatric patients when therapy was combined with self-confrontation afforded by television. Danet[13], on the other hand, found that self-confrontation combined with out-patient group therapy resulted in more negative self-evaluations, while group therapy alone produced more positive self-evaluations. Danet, in reviewing some of the research related to the use of self-confrontation in psychotherapy concluded, "In contrast to the degree to which videotape playback has been utilized clinically with groups, a striking absence of research studies in this particular application

of the device was noted."[14] While it would be difficult to generalize the results of self-viewing studies dealing with psychiatric patients to the normal population, Danet's study indicates that self-confrontation does not always produce desirable results in the self-concept. Additional research is needed to determine under what conditions self-confrontation can most beneficially be employed.

Self-concept may be evaluated not only in terms of actual and ideal congruence but also in terms of the degree of self identity. Previous research indicates that college students, as well as others, tend to describe themselves primarily in terms of their group memberships rather than in specific evaluative terms. For example, Kuhn and McPartland found that 288 college students, when asked to write 20 statements to complete the sentence, "I am. . .," responded by listing group memberships before listing self-evaluative terms[15]. Assuming that the priority of responses is a valid reflection of the individual's self-concept, the study indicates that the average student views himself first of all in terms of particular reference groups. Self-viewing on closed-circuit television should allow the student to see himself more as an individual, and his descriptions of himself should reflect a more individualistic type of evaluation, rather than an evaluation based primarily on reference groups.

Importance of the Self-Concept to Interpersonal Behavior

The self-concept is not of significance to the self alone, but is important also because of its effects on interpersonal behavior. Berger, for example, has shown that individuals tend to evaluate people in general similar to the way they evaluate

themselves.[16] Going further, Brown also describes the relationship of the self-concept to an individual's conception of others. He points out that changes in evaluations of others "start a shock wave that alters the self-conception," and conversely, a radical change in an individual's opinion of himself affects his evaluation of others. Using a balance model as a theoretical framework, Brown indicates that as self-conceptions and conceptions of others change, the bonds of relationship between the self and others also change.[17] Guthrie earlier noted this same phenomenon in his description of the positive behavioral changes which occurred in a college coed as her self-concept changed.[18] Krech, Crutchfield and Ballachey, in summarizing the research and theory in this area, pointed out that the self is extremely important in the development of interpersonal response traits because it has been shown that "enhanced self-esteem may lead to social initiative, ascendancy, etc., and. . . threatened self-esteem may lead to aggressiveness, unfriendliness, etc. It should also. . .be noted that the way interpersonal response traits develop and change often reflects the fact that an individual's view of himself is inseparably related to his view of others."[19]

In a different kind of study, Terman traced the growth and development of 1000 giften children (those with I.Q.'s above 140) from the age of 10 to 35. When the subjects were 35 years old, Terman selected the 150 who were most successful (A group) and the 150 who were least successful (C group) and attempted to determine which factors could account for the differences in success of

the gifted people studied. Wolfe summarized the results of Terman's study:

> In testing personality traits of A and C men as described by themselves, their parents, and their wives, Terman did not find substantial differences except in three traits, which he describes as perserverance, integration toward goals, and self-confidence. In these three categories the A men were statistically superior.[20]

While no cause-effect laws can be established on the basis of descriptive, correlational data, this study is of singular importance in that it suggests the central role that the self-concept plays in occupational success.

If self-viewing on closed-circuit television can bring about desirable changes in the self-concept, it should prove to be a very useful, if not essential, part of speech training. Moreover, since television playback will undoubtedly be used more and more in speech classes, it becomes increasingly important to know what influence this experience is having on the students, particularly on changes in the self-concept. If the use of self-viewing does have a desirable impact on the self-concept as predicted, then this evidence should encourage more schools to adopt its use. If self-viewing has an undesirable impact on the self-concept, if the student's self-concept becomes even further removed from his ideal concept as a result of seeing himself on television, then perhaps its use in the speech classroom should be limited until further research indicates the conditions under which the desired changes may occur.

Hypotheses of the Study

The objectives of the study were to find, through controlled

field experiments in the classroom, answers to some of the problems indicated in the rationale. The specific hypotheses tested in this study are the following:

H_1: Students who repeatedly view themselves giving speeches on closed-circuit television will rate their self-concept as speakers more similar to their ideal self than students who do not view themselves on television.

H_2: Students who view themselves on television will rate their self-concept more similar to the ratings of observers than students who do not view themselves on television.

H_3: Students who view themselves on television will describe themselves more in evaluative terms and less in terms of group memberships than students who do not view themselves on television.

CHAPTER II

METHOD

This chapter describes the method and procedures employed in this experiment.

Subjects

Six sections of general speech, taught by three instructors, were utilized. One class of each instructor was randomly assigned to the experimental self-viewing group and one class to the control group. In all, there were 54 students in the self-viewing group and 59 students in the control group.

Procedures

Both the experimental and control groups were given the same speech assignments in the same sequence. The topics of the speaking assignments were designed to increase the students' awareness of themselves and the role which speech plays in the developmental process. The details of the speech assignments are included in Appendix A. In the experimental group, the four speeches during the semester were video-taped during the regular class period, and those students giving speeches during one class period went to a special viewing room during the next class period to watch the video-tape of himself speaking. No monitor or camera was visible to the student during the process of giving the speech, since this would disrupt the normal speaking behavior. Pictures were taken through a one-way glass from an adjoining room.

The instructors, all of whom are familiar with the experimental method and control problems, attempted to keep all other aspects of the control and experimental groups the same. In order to minimize the influence of grades, no grades were given on any assignment, and students were assured of a minimum of C if they completed all assigned speeches.

Before the first speech and following each speech thereafter, the students were given a semantic differential scale to assess their self-concepts as speakers and their concepts of an ideal speaker. This scale was administered during the first class period after each speaking experience to both the control and experimental subjects. Prior to filling out the self-ratings, the subjects in both groups filled out an open-ended reaction form designed to call attention to several aspects of communicative behavior. This form served two purposes: 1. It helped the students in both conditions to recall their speaking experiences; and 2, it assisted the students in the self-viewing condition to analyze the self-confrontation experience.

After the last speech, two junior or senior speech majors (Learning-Teaching Assistants), who had observed the class all semester, rated each speaker on the semantic differential scale. Each instructor also filled out a semantic differential form for each of his students at the end of the experiment.

At the beginning of the semester and again at the end of the semester, the students filled out the twenty-statements "Who am I?" test referred to earlier.

Experimental Variable

As indicated in the procedures above, the speeches of the students in the experimental classes were video-taped during the regular class period and played back in a special viewing room during the next class period. This was repeated four times during the semester. Each filming of each student started with a full length shot for thirty seconds, changed to a medium shot (waist up), then to a close-up, then to a medium shot and finally to a full length shot again. If there was time remaining, the sequence was repeated.

Criterion Variables

Rating of the self-concept (semantic differential)

At the beginning of the experiment and following each of the four speeches which were recorded on video-tape and viewed, the students filled out two semantic differential scales, one evaluating his performance, one expressing his ideal. Each contained 12 bipolar adjectives, with seven step evaluation scales for each pair of adjectives. An example of the questionnaire is found in Appendix B.

These semantic differential scales were developed with factor analytic techniques by Dieker and Jones (1966), and measure the students' self-concept as a speaker in terms of four factors: (1) "wisdom", or the student's general relationship with the universe, or knowledge; (2) "pleasantness", or the student's relationship with others; (3) "authoritativeness", or the student's relationship with himself; and (4) "forcefulness", or the student's energy or activity level. A summary of the factor loadings on each scale are found in Appendix C.

Differences between the actual self ratings and the ideal self ratings were computed by means of the generalized distance statistic, D^2, and these differences were compared in the experimental and control groups.[21] Comparisons were also made between the ratings of the actual self at time 5 (the last speech assignment) and the ratings of the observers and of the instructor.

"Who Am I?" test

At the beginning of the semester and again at the end of the semester, as already suggested, the students in both conditions were asked to write twenty statements describing themselves beginning with the words "I am. . ." The responses are categorized in terms of references to group memberships, E.G., "student", "sophomore", "Alpha Sig", etc., and references to specific characteristics of the individual, e.g., "happy", "fat", "boring", etc. The frequencies of changes from group membership to individual descriptive terms in both conditions were compared.

Statistical Analysis

Comparisons of "actual-self" and "ideal-self" differences between the control and experimental groups involved repeated measurements on the same subjects in the two conditions. An AxBxC factorial analysis of variance design with the levels of analysis consisting of: class (A) self-viewing/control condition (B) and the time of measurement for (C) five time periods was employed to test the significance of the data.[22] No predictions were made that self-viewing would have different effects depending on the class and/or instructor; however, an analysis for these variables

was made in order to determine if there were any class or instructor biases operating in the experiment. A separate analysis of variance was computed for each factor of the self-concept. The studentized range statistic and tests were used to test the significance of simple effects.[23]

Comparisons of ratings of the actual self and ratings of the self by observers and by the instructor on the four factors were made by means of an AxBxC factorial analysis of variance design.

Comparisons of the changes from group membership terms to individual evaluative terms in the experimental and control groups were analyzed by x^2 tests and the Mann-Whitney U test.

CHAPTER III

RESULTS

The results of the experiment are summarized in this section under each hypothesis of the study.

Hypothesis 1: Students who repeatedly view themselves giving speeches on closed circuit television will rate their self-concept as speakers more similar to their ideal self than students who do not view themselves on television.

Hypothesis 1 was tested for each of the four factors of the self-concept described in Chapter 2, wisdom, forcefulness, pleasantness, and authoritativeness. Each of the factors of the self-concept is measured by three scales of the semantic differential, with a total score which can range from 3 to 21. A separate 3x2x5 analysis of variance test was made for each factor, with the levels of analysis consisting of class (A), self-viewing/control condition, (B) and the time of measurement (C). No predictions were made that self-viewing would have different effects depending on the class and/or instructor as indicated in the previous section, and this variable was included only for control purposes to test for errors which could be attributed to the particular groupings of subjects, or type G error.[24]

The analysis of variance tests related to hypothesis one yielded no significant effects related to the class variable. Thus the data are summarized over all three classes in each condition in order to more clearly present the significant results. The lack of significant effects for the class variable offers evidence that the

control of instructor and class biases was successful, particularly since other effects were significant.

In order to determine if the significant results over time were a function of changes in the actual self-concept, the ideal self-concept, or both, separate analysis of variance tests were computed for the actual self ratings and the ideal self ratings. The analysis of variance tests on the ideal self ratings yielded no significant F values for any of the self-concept factors, while the F values of the tests on the actual self-ratings corresponded very closely to the results of the difference score analyses. These findings indicate that most of the changes in the D^2 values, which indicate changes in the congruence of the actual and ideal self-concepts, are the consequence of changes in ratings of the actual self.

In the following section, the mean D^2 scores, which indicate the amount of congruence between ratings of the actual and ideal self concepts, will be presented. In addition, the actual self ratings alone will be presented. The significant effects from the analysis of variance tests are reported in the text. A complete summary of the analysis of variance tests reported in this study can be found in Appendix D.

1a. Wisdom factor results for hypothesis 1.

Table 1 presents a summary of the means of the D^2 scores on the wisdom factor for the self-viewing and control conditions at five time periods, with Time 1 representing the pre-test scores; Time 2, the scores following the first self-viewing assignment; Time 3,

the second self-viewing assignment; Time 4, the third self-viewing assignment; and Time 5, the fourth self-viewing assignment. In the control condition, of course, the ratings were made at the same times, following the same assignments.

Table 1. Mean D^2 Scores Between Actual and Ideal Self Ratings on the Wisdom Factor for both Self-Viewing and Control Conditions at Five Time Periods.

		Time					
Condition	N	1	2	3	4	5	Total
Self-Viewing	54	14.78[1]	12.22	11.63	10.85	11.67*	12.23
Control	59	17.69	11.76	9.32	8.54	5.75*	10.61
Total	113	16.30	11.98	10.42	9.65	8.58	

[1]In this and the following tables, means within each condition over time are not significantly different if they are connected by underlining. Those means which are connected by underlining are significantly different at the .05 level, using the studentized range statistic. (Winer, 1962, p. 77).

Simple effects between the self-viewing and control conditions at a given level of time are significant at the .05 level, two-tailed t test, if the means at that level are asterisked; e.g., the difference between means at Time 5 between the self-viewing and control conditions is significant.

Analysis of variance yielded a significant main effect of time ($F = 11.05$, $p < .01$) and a significant first order interaction between time and self-viewing ($F = 3.14$, $p < .05$).[25] Of particular interest to this study is the time/self-viewing interaction, which is the result related to hypothesis 1. Table 1 indicates, however, that contrary to predictions, the significant interaction is a function of the actual-ideal self congruence in the control condition increasing significantly, while the actual-ideal congruence in the experimental

condition does not significantly change over four self-viewing experiences. The studentized range statistic revealed no significant differences over time in the self-viewing condition, while in the control condition, the pre-test score at Time 1 was significantly different from all of the other ratings, and the rating at Time 5 was significantly different from the ratings at both Time 1 and Time 2. The ratings at Time 2, 3, and 4 in the control condition were not significantly different.

The significant main effect of Time can be attributed to the significant difference between the rating at Time 1 and all subsequent ratings.

Table 2 presents the mean actual self ratings on the wisdom factor for the self-viewing and control conditions over time. As Table 2 indicates, the results closely parallel the results of the D^2 scores in Table 1.

Table 2. Mean Actual Self Ratings on the Wisdom Factor for both Self-Viewing and Control Conditions at Five Time Periods.

		Time					
Condition	N	1	2	3	4	5	Total
Self-Viewing	54	13.96	14.33	14.64	15.01	15.04*	14.60*
Control	59	13.59	14.79	15.71	15.88	16.97*	15.39*
Total	113	13.77	14.58	15.20	15.47	16.04	

Analysis of variance of the actual self ratings on the wisdom factor yielded a significant main effect of self-viewing

($F = 4.04$, $p > .05$), a significant main effect of time ($F = 19.50$, $p > .01$), and a significant first order interaction of time and self-viewing ($F = 4.52$, $p > .01$). The significant main effect of self-viewing can be attributed to the significantly higher over-all ratings in the self-viewing condition. The significant main effect of time can be attributed to the increase over time of ratings of the acutal self.

The significant first order interaction between time and self-viewing was a consequence of the steady increase in self-ratings over time in the control condition, with no significant changes in self-ratings occurring in the self-viewing condition. None of the differences between means in the self-viewing condition over five time periods was significant. In the control condition, ratings at Time 1 and Time 5 were significantly different from all other ratings, while ratings at Times 2, 3, and 4 were not significantly different from each other.

1b. Forcefulness factor results for hypothesis 1.

Table 3 presents a summary of the means of the D^2 scores on the forcefulness factor for the self-viewing and control conditions at five time periods.

Table 3. Mean D^2 Scores Between Actual and Ideal Self Ratings on the Forcefulness Factor for both Self-Viewing and Control Conditions at Five Time Periods.

		Time					
Condition	N	1	2	3	4	5	Total
Self-Viewing	54	18.52	15.54	14.89	13.17	15.85*	15.59
Control	59	18.51	15.98	10.19	9.24	6.56*	12.09
Total	113	18.51	15.77	12.43	11.12	11.00	

Analysis of variance showed a significant main effect of time ($F = 9.00$, $p > .01$) and a significant first order interaction of time and self-viewing ($F = 3.29$, $p > .05$). The results of the forcefulness factor are nearly the same as those of the wisdom factor, with the significant interaction between time and self-viewing accounted for by the significant increase in actual-ideal self congruence over time in the control condition, while the difference between actual and ideal self ratings does not significantly change over time in the self-viewing condition. At Time 5, the D^2 scores for the control group are significantly smaller than the D^2 scores for the self-viewing group.

The significant main effect of time can be accounted for by the steady decrease, over time, of the difference between actual and ideal self ratings. The significant differences between means are indicated in Table 3.

As with the wisdom factor, the analysis of the D^2 scores for the forcefulness factor showed significant effects opposite those predicted in hypothesis 1. Instead of the difference between the actual and ideal self ratings decreasing more in the self-viewing condition than in control condition without self-confrontation, just the opposite effects occurred.

Table 4 presents the mean actual self ratings on the forcefulness factor for the self-viewing and control conditions over time.

Table 4. Mean Actual Self Ratings on the Forcefulness Factor for both Self-Viewing and Control Conditions at Five Time Periods.

		Time					
Condition	N	1	2	3	4	5	Total
Self-Viewing	54	13.61	13.67	14.07	14.61	14.33*	14.05*
Control	59	13.54	14.42	15.17	15.46	17.00*	15.11*
Total	113	13.57	14.06	14.64	15.05	15.72	

Analysis of variance showed a significant main effect of self-viewing ($F = 6.58$, $p > .05$), a significant main effect of time ($F = 14.56$, $p > .01$), and a significant first order interaction of time and self-viewing ($F = 5.16$, $p > .05$).

The interaction of time and self-viewing can be accounted for by the significant increase in self ratings over time in the control condition, while the self ratings in the self-viewing condition did not significantly change over time, which is opposite the changes predicted.

The significant main effects of self-viewing and time are indicated in Table 4. The main effect of self-viewing is a result of over-all significant increases in self ratings over time, with the significant differences between means shown in Table 4.

1c. Pleasantness factor results for hypothesis 1.:

Table 5 presents a summary of the means of the D^2 scores on the pleasantness factor for the self-viewing and control conditions over time.

Table 5. Mean D^2 Scores between Actual and Ideal Self Ratings on the Pleasantness Factor for both Self-Viewing and Control Conditions at Five Time Periods.

		Time					
Condition	N	1	2	3	4	5	Total
Self-viewing	54	11.29	10.76	9.98	6.76	8.67	9.49
Control	59	13.20	9.63	7.85	8.59	6.46	9.15
Total	113	12.29	10.17	8.87	7.72	7.51	

Analysis of variance revealed that only the main effect of time was significant ($F = 7.88$, $p < .01$). The main effect of self-viewing and the interaction of self-viewing and time did not reach satisfactory significance levels. The main effect of time can be attributed to significant improvement in actual-ideal self congruence over the five time periods, with the significant differences between means indicated in Table 5. None of the differences between the self-viewing and control conditions at a given level of time reached significance. The failure to attain significance on the time/self-viewing interaction indicates that the subjects did not respond differentially to the two experimental conditions over time on the pleasantness factor of the self ratings. These results, therefore, do not lend support to hypothesis 1.

Table 6 contains a summary of the mean actual self ratings on the pleasantness factor for the self-viewing and control conditions over time.

Table 6. Mean Actual Self Ratings on the Pleasantness Factor for both Self-Viewing and Control Conditions at Five Time Periods.

		Time					
Condition	N	1	2	3	4	5	Total
Self-Viewing	54	14.15	14.39	14.74	14.89	15.44	14.72
Control	59	14.10	14.46	14.98	15.54	16.15	15.04
Total	113	14.12	14.42	14.87	15.23	15.81	

The results of the actual self ratings on the pleasantness factor closely parallel the results of the D^2 scores on the same factor. Analysis of variance showed a significant main effect over time ($F = 12.43$, $p < .01$), which is indicated by the significant differences between means shown in Table 6. The main effect over self-viewing and the interaction of self-viewing and time were not significant.

ld. Authoritativeness factor results for hypothesis 1.

Table 7 contains a summary of the mean D^2 scores on the authoritativeness factor for the self-viewing and control conditions over time.

Table 7. Mean D^2 scores between Actual and Ideal Self Ratings on the Authoritativeness Factor for both Self-viewing and Control Conditions at Five Time Periods.

		Time					
Condition	N	1	2	3	4	5	Total
Self-Viewing	54	16.94	13.76	11.28	12.24	10.61*	12.97
Control	59	21.61	12.46	9.59	10.59	5.75*	12.00
Total	113	19.38	13.08	10.39	11.38	8.07	

Analysis of variance revealed a significant main effect of time ($F = 17.85$, $p < .01$) and a significant interaction of time and self-viewing ($F = 2.93$, $p < .05$). The significant differences between means contributing to the significant main effect of time can be observed in Table 7. The mean at Time 1 is significantly different from all other means of the total scores. In addition, the mean at Time 5 is significantly different from the mean at Time 2.

The significant interaction between time and self-viewing can be attributed to the significantly greater increase in actual-ideal congruency in the control condition than in the self-viewing condition, opposite to the predicted direction of significance. While the mean D^2 score at Time 5 is significantly less than at Time 1 in the self-viewing condition as well as in the control condition, the mean D^2 score at Time 5 in the control condition is significantly smaller than at Time 5 in the self-viewing condition. Within the control condition, the mean at Time 5 is significantly smaller than the means at both Time 1 and Time 2.

Table 8 contains a summary of the mean actual self ratings on the authoritativeness factor for the self-viewing and control conditions over time.

Table 8. Mean Actual Self Ratings on the Authoritativeness Factor for both Self-Viewing and Control Conditions at Five Time Periods.

		Time					
Condition	N	1	2	3	4	5	Total
Self-viewing	54	13.15	13.52	13.67	13.85*	14.67*	13.77*
Control	59	13.11	14.30	14.71	15.10*	16.44*	14.74*
Total	113	13.13	13.93	14.21	14.50	15.60	

Analysis of variance on the actual self ratings on the authoritativeness factor revealed a significant main effect of self-viewing ($F = 4.59$, $p < .05$), and a significant main effect of time ($F = 18.74$, $p < .01$). The interaction of time and self-viewing did not reach a satisfactory significance level ($F = 2.30$, $p < .10$). Although the interaction was not significant, the ratings of the actual self in the control condition were significantly greater than the means in the self-viewing condition at Time 4 and Time 5, while the ratings between conditions at Times 1, 2 and 3 were not statistically significant. The main effect of self-viewing can be accounted for by the higher over-all rating of the self in the control condition, and the significant time effect can be attributed to a significant increase in self ratings over time. The significant differences between means are indicated in Table 8.

Hypothesis 2: Students who view themselves on television will rate their self-concept more similar to the ratings of observers than students who do not view themselves on television.

As described in Chapter 2, self ratings on the four factors of the self-concept at Time 5 were compared with the average ratings of two speech majors who were participant-observers in the classes during the semester, also made at Time 5. Each of the instructors also rated each of his own students at Time 5, the end of the semester, and these results are reported following the observer-student results.

In order to test for any class and/or instructor biases in the ratings, the class variable was included in the analysis of variance tests. The three factors in the analysis of variance tests, then, were class (A), self-viewing (B), and rater (C), with three

levels of class (corresponding to the three instructors), two levels of self-viewing (self-viewing and control conditions), and two levels of raters (observer and self ratings.) Since the class variable was included only as a control variable, the data are reported in this section collapsed over class in order to present more clearly the results relevant to hypothesis 2. Hypothesis 2 predicts a significant interaction between self-viewing and observer/self rater, with significantly greater correspondence between observer and self ratings in the self-viewing condition than in the control condition.

2a. Wisdom factor results for hypothesis 2.

Table 9 presents the mean actual self ratings and observer ratings at Time 5 in the self-viewing and control conditions on the Wisdom factor.

Table 9. Mean Actual Self Ratings and Observer Ratings on the Wisdom Factor at Time 5 for both Self-viewing and Control Conditions.

		Rater		
Condition	N	Self	Observer	Total
Condi				
Self-viewing	54	15.04	16.00	15.51
Control	59	16.97	17.41	17.19
Total	113	16.04	16.73	

Analysis of variance of the ratings revealed a significant main effect of self-viewing ($F = 12.98$, $p < .01$), with the control condition rated significantly higher on the wisdom factor than the self-viewing condition. The other significant F values were a significant

main effect of class ($F = 7.92$, $p < .01$) and a first order interaction of class and self-viewing ($F = 7.45$, $p < .01$). The unexpected significant main effect related to class and the interaction of class and self-viewing were caused by significantly lower ratings by the observers in one of the control classes. It is difficult to account for these unexpected effects, and a discussion of some possible explanations will be presented in the next chapter. The findings related to observer and self ratings on the wisdom factor do not support hypothesis 2.

Table 10 presents the mean actual self ratings and instructor ratings at Time 5 in the self-viewing and control conditions.

Table 10. Mean Actual Self Ratings and Instructor Ratings on the Wisdom Factor at Time 5 for both Self-viewing and Control Conditions.

		Rater		
Condition	N	Self	Instructor	Total
Self-viewing	54	15.04	15.07	15.06
Control	59	16.97	14.97	15.97
Total	113	16.04	15.02	

A three way analysis of variance yielded no significant F values for the self and instructor ratings on the wisdom factor. Since none of the F values was significant, it was not appropriate to compare individual means within the over-all design. Consequently, the data from the wisdom factor do not support hypothesis 2.

2b. Forcefulness factor results for hypothesis 2.

Table 11 presents the mean actual self and observer ratings on the forcefulness factor at Time 5.

Table 11. Mean Actual Self Ratings and Observer Ratings on the Forcefulness Factor at Time 5 for both Self-viewing and Control Conditions.

Condition	N	Rater		Total
		Self	Observer	
Self-viewing	54	14.33	15.26	14.79
Control	59	17.00	17.19	17.09
Total	113	15.72	16.26	

Analysis of variance of the forcefulness ratings revealed a significant main effect of self-viewing ($F = 22.69$, $p < .01$), a significant main effect of class ($F = 4.03$, $p < .05$), a significant interaction of class with self-viewing ($F = 8.63$, $p < .01$), and a significant interaction of class with rater ($F = 3.60$, $p < .05$). The significant main effect of the self-viewing can be attributed to the higher over-all ratings of both students and observers in the control group than in the self-viewing group. Both the simple effects of self ratings between the control and self-viewing conditions and the observer ratings between the control and self-viewing conditions were significant at the .05 level.

The significant main effect of class and the interactions of class with self-viewing and with rater can be attributed to the observers in one control class consistently rating the students lower than observers in the other two classes. A discussion of this result will be found in the next chapter.

The results of the self and observer ratings on the forcefulness factor do not lend support to hypothesis 2.

Table 12 contains a summary of the mean actual self and instructor ratings on the forcefulness factor at Time 5.

Table 12. Mean Actual Self Ratings and Instructor Ratings on the Forcefulness Factor at Time 5 for both Self-viewing and Control Conditions.

Condition	N	Rater		Total
		Self	Instructor	
Self-viewing	54	14.33	14.79	14.56
Control	59	17.00	14.36	15.68
Total	113	15.72	14.57	

Analysis of variance of the data summarized in Table 12 yielded a significant main effect of self-viewing ($F = 4.29$, $p < .05$), a significant main effect of rater ($F = 4.66$, $p < .05$), and a significant interaction of self-viewing and rater ($F = 8.35$, $p < .01$). None of the F values related to the class variable was significant.

The data on the forcefulness factor strongly support hypothesis 2. In Table 12, the self-ratings in the control condition are significantly different from the instructor ratings ($t = 5.90$, $p < .01$) and significantly different from the self ratings in the self-viewing condition ($t = 4.83$, $p < .01$). The significant interaction of self-viewing and rater can be attributed to the greater correspondence between the self ratings and instructor ratings in the self-viewing condition than in the control condition. The higher self ratings in the control condition are also the primary cause of the significant main effects of self-viewing and rater.

2c. Pleasantness factor results for hypothesis 2.

Table 13 contains a summary of the mean actual self ratings and observer ratings on the pleasantness factor at Time 5 in the self-viewing and control conditions.

Table 13. Mean Actual Self Ratings and Observer Ratings on the Pleasantness Factor at Time 5 in the Self-viewing and Control Conditions.

		Rater		
Condition	N	Self	Observer	Total
Self-viewing	54	15.44	15.74	15.59
Control	59	16.15	16.93	16.54
Total	113	15.81	16.36	

Analysis of variance of the data summarized in Table 13 yielded a significant main effect of self-viewing ($F = 4.17$, $p < .05$) and a significant interaction of class and self-viewing ($F = 4.40$, $p < .05$). No other F values were significant.

Since there was no significant interaction between self-viewing and rater, indicating a lack of difference between the differences in observer-self ratings between the self-viewing and control conditions, these data do not support hypothesis 2. The significant main effect of self-viewing is accounted for by the significantly higher self and observer ratings on the pleasantness factor in the control group than in the self-viewing group.

Table 14 contains a summary of the mean actual self ratings and instructor ratings on the pleasantness factor.

Table 14. Mean Actual Self Ratings and Instructor Ratings on the Pleasantness Factor at Time 5 for both Self-viewing and Control Conditions.

Condition	N	Rater		Total
		Self	Instructor	
Self-viewing	54	15.44	15.22	15.33
Control	59	16.15	15.34	15.75
Total	113	15.81	15.28	

Analysis of variance of the data summarized in Table 14 yielded no significant F ratios. Consequently, the data do not support hypothesis 2.

2d. Authoritativeness factor results for hypothesis 2.

Table 15 contains a summary of the mean actual self ratings and observer ratings on the authoritativeness factor in the self-viewing and control conditions.

Table 15. Mean Actual Self Ratings and Observer Ratings on the Authoritativeness Factor at Time 5 for both Self-viewing and Control Conditions.

Condition	N	Rater		Total
		Self	Observer	
Self-viewing	54	14.67	15.05	14.87
Control	59	16.44	16.05	16.24
Total	113	15.60	15.58	

Analysis of variance of the authoritativeness data revealed a significant main effect of self-viewing ($F = 7.65$, $p < .01$), a significant main effect of class ($F = 5.74$, $p < .01$), and a significant

interaction of class and self-viewing ($F = 3.28$, $p < .05$). None of the other F ratios wasesignificant.

The significant main effect of self-viewing could aggin be accounted for by the over-all higher ratings in the control than in the self-viewing condition. However, since there was no significant interaction between self-viewing and rater, the data do not support hypothesis 2.

Table 16 contains a summary of the mean actual self ratings and instructor ratings on the authoritativeness factor at Time 5.

Table 16. Mean Actual Self Ratings and Instructor Ratings on the Authoritativeness Factor at Time 5 for both Self-viewing and Control Conditions.

		Rater		
Condition	N	Self	Instructor	Total
Self-viewing	54	14.67	13.61	14.15
Control	59	16.44	13.88	15.16
Total	113	15.60	13.75	

Analysis of variance on the authoritativeness data summarized in Table 16 revealed a significant main effect of rater ($F = 8.74$, $p < .01$). None of the other F ratios attained a satisfactory significance level. The significant main effect of rater can be accounted for by the significantly higher ratings on authoritativeness by the self than the instructor, particularly in the control condition. The simple effect between the self ratings and instructor ratings in the control condition was significant ($t = 4.69$, $p < .05$), whereas the simple effect in the self-viewing condition between self and instructor

was not significant. The interaction of rater and self-viewing was not significant, indicating that the difference between differences in ratings at the levels of self-viewing was not significant.

Hypothesis 3: Students who view themselves on television will describe themselves more in evaluative terms and less in terms of group memberships than students who do not view themselves on television.

The twenty statements "Who Am I?" test, which was administered at Time 1 and Time 5, was employed to test hypothesis 3. Change scores from pretest to posttest were analyzed by means of X^2 tests, sign tests and the Mann-Whitney U test. Since the first responses are considered to be the more significant to the individual, the analyses were made for both the first ten responses and all twenty responses to the test.

Table 17 contains a summary of the changes from pretest to posttest in responses to the "Who Am I?" test in the number of group membership references on the first 10 responses and on the total 20 responses.

Table 17. Summary of the Changes from Pretest to Posttest in Responses to the "Who Am I?" Test for both Self-viewing and Control Conditions.

		Self-viewing	Control	Total
Number of Ss Decreasing Group References	First Ten Items	43	40	83
	All 20 Items	44	41	85

X^2 tests showed no significant differences in the number of subjects in each condition decreasing the number of group references for either the first ten items or for all twenty items. Assuming that

the data met the criteria for ordinal measurement, the more powerful Mann-Whitney U test was made on the "Who Am I?" test results. The Mann-Whitney U test approached a satisfactory significance level ($z = 1.61$, $p < .06$) for the first ten responses, with the self-viewing condition tending to give fewer group reference responses from pretest to posttest. However, since the results did not quite reach the .05 level of significance, no conclusions can be made about the differences between the two groups. The Mann-Whitney U test revealed no significant difference between the self-viewing and control conditions on all twenty items.

A sign test was used to determine if the changes from pretest to posttest for all subjects was significant. It was found that there were significantly fewer group membership references on the posttest than on the pretest ($z = 6.64$, $p < .00003$).

Since there were no significant differences between the self-viewing and control conditions, however, hypothesis 3 was not supported.

CHAPTER IV

CONCLUSIONS, DISCUSSION AND IMPLICATIONS FOR FURTHER RESEARCH

On the basis of the results of this experiment, the following conclusions can be drawn. These results are generalizable only to those situations which closely parallel the conditions found in this study, including the nature and number of self-viewing assignments, the classroom situation, and the age and educational status of the subjects.

1. Four individual experiences with self-confrontations resulted in significantly less improvement in actual-ideal self congruence than four similar experiences without self-confrontation. This was found on three of the four dimensions of the self-concept: wisdom, forcefulness and authoritativeness. On the fourth factor, pleasantness, it should be noted, there was a significant improvement in actual-ideal self congruence in both the self-viewing and control conditions, but no significant difference in the amount of improvement between the two conditions.

2. The increased congruence of the actual and ideal self concepts in both conditions for all four factors can be attributed to significant increases in the ratings of the actual self rather than to changes in the ideal self concept, with a significantly greater increase in the actual self ratings in classes without self-viewing than in the classes with self-confrontation on videotape. No significant

change in the ideal self ratings were found in either the self-viewing or control conditions over the course of one semester.

3. Students without self-viewing, with the assignments used in this experiment, significantly increased their actual self ratings on all four factors of the self-concept. Students in the self-viewing condition, however, significantly increased their actual self ratings over the semester on only two factors, pleasantness and authoritativeness.

4. Over-all, the ratings of the self and the ratings by student observers did not differ significantly in either the self-viewing or control conditions. The observers ratings tended to be higher than the self ratings in both conditions, although the differences were not significant. Observers rated the students significantly higher in the control condition than in the self-viewing condition, except for one control class, in which the observers consistently rated the students lower.

5. After four speaking experiences, students without self-confrontation rated themselves significantly higher on the forcefulness factor and authoritativeness factor than the instructors did, while with self-confrontation, the ratings by the self and by the instructors on all factors, were not significantly different. The differences between student and instructor ratings on the forcefulness factor were great enough between conditions to result in a significant interaction between self-viewing and rater, whereas on the authoritativeness factor, the interaction did not reach significance.

The differences between instructor and self ratings did not attain a satisfactory significance level on the wisdom and pleasantness factors,

6. Both the self-viewing and control groups changed significantly in the direction of assigning more personal descriptions to the self at the end of the semester. There was no difference in changes in references from group memberships to personal descriptions as determined by the "Who Am I?" test between the self-viewing and control conditions.

It was predicted that the difference in ratings between the actual and ideal self would be less after four speaking assignments for the self-viewing group than for the control group. However, just the opposite results occurred. Several factors may have contributed to this finding.

Perhaps the most obvious explanation is the possibility that self-viewing, when combined with the kinds of assignments experienced in the general speech course, helps the student to evolve a more realistic conception of himself, while the same assignments, without self-viewing, tend to inflate the students' self-concept. This interpretation is supported by the finding that the instructors' ratings of the students tended to correspond more closely to the students' own ratings in the self-viewing condition than in the control condition. Self-viewings, in other words, tend to keep the students' self-concepts closer to the way others perceive them. Whether or not the "inflated" self-concept on the forcefulness and authoritativeness factors in the control condition is undesirable depends upon the impact upon the overall growth of the student,

a question which goes beyond the reach of this study.

Another possible explanation for the self-rating results may be related to the time of measurement of the self-concept. Since the self-viewing did not take place until the next class period following the videotaping, the self-ratings were made about two days after the actual speaking experience. In order to control for the time factor, the control group also waited until the next class period to fill out the rating scales. By the time the students in the control condition filled out the rating forms, they may have forgotten some of their weaknesses, while students in the self-viewing condition were reminded, by videotape, of their experience, and the forgetting of the actual experience may therefore not have been as great.

A third possible explanation for the lesser positivie impact of the self-confrontation experience on the self-concept may be related to the self-viewing experience itself. In the present experiment, the students watched themselves on videotape without any comments by the instructor about the experience either during or following the self-viewing. In addition, the student sat through the entire video-tape of a given speaking assignment without stopping the tape for reflection or analysis. After the entire tape had been viewed, the student filled out the form in Appendix B giving his reactions to what he had seen. (Danet indicates that it may be desirable, or even necessary, for analysis to take place <u>during</u> the self-confrontation, perhaps with the assistance of another person,

in order to get positive results from a self-viewing experience. Future research should take this possibility into account.)

The impact of the evaluation system on the control group may have had some influence on self-ratings. In order to maintain equal conditions, except for the variable of self-viewing, students in both conditions were given no written or oral evaluations, and no grades were assigned. Thus, the students in the control group received no evaluation and had to rely on their own evaluations without the aid of television. The difference in the congrueneeeof the actual and the ideal may have been influenced by this factor.

It was noted earlier that there were no significant differences between the student observers' ratings and the self ratings in either condition at the end of the experiment. There was, however, a significant difference between the ratings of the observers in the different classes in the control condition. It is difficult to determine what caused the significant difference between classes in the observer ratings; since many observer variables were not controlled for. The difference could be attributed to personality variables, rating conditions, differences in evaluating skill, attitudes toward the course and the students, or any number of other variables. It is doubtful if the difference reflected an actual difference between students being rated, since none of the other measures, including the self ratings and the instructor ratings, showed a significant class effect.

It was noted that the observers in the control condition tended to give significantly higher ratings of the students than the observers

in the self-viewing condition, with the one exception. This more lenient rating in the control condition, can possibly be accounted for by the fact that the observers in the control condition spent all of their time in the class with the students, and got to know the students on a more personal basis than did the observers in the self-viewing condition, who also served as the recording and playback technicians, and hence were out of the room much more than were the control observers. Because of all of the extraneous variables associated with the observers in the two conditions, the reliability of the ratings by the observers must be considered highly tenuous.

The lack of significant differences between the self-viewing group and the control group on the "Who am I?" test in changes from group membership references to personal descriptions can probably be attributed to the nature of the last assignment, in which the students asked other people to respond to them as communicators, and on the basis of these responses, to analyze their strengths and weaknesses. Since the assignment forced the students to focus on themselves personally, and describe themselves to the class in this way, it reduced the differences between the two conditions in terms of verbal descriptions of themselves. Even under these conditions, the self-viewing condition tended to give more personal descriptions at the end of the semester, although the difference did not quite attain statistical significance. With less personally directed subject matter for the speaking assignments, the impact of self-viewing on the students' image as measured by the "Who Am I?" test would probably be much greater.

In summary, students who view themselves repeatedly on closed-circuit television increase in their actual self ratings significantly less than do comparable students, using the same assignments, without self-viewing. However, the self-viewing students tend to develop a more realistic self-concept, as reflected by the amount of correspondence to instructor ratings, than do the students without self-viewing.

The present study suggests many implications for further research. First of all, the nature of the self-viewing assignments probably has a significant effect on the type of impact that the self-confrontation has for an individual. The present experiment used very personally directed assignments, and the self-viewing students watched themselves talking about various aspects of their own lives and experiences. It is quite likely that different types of speaking assignments, where the students then watch themselves talking about subjects external to their own personal lives, would have less impact, particularly if there were little ego-involvement in the topics selected.

In addition, the present study used assignments which allowed the students time for preparation before the videotaping. All of the instructors involved in the experiment noted a strong tendency for the students in the self-viewing condition to prepare more formal types of speeches, while the students in the control condition maintained greater informality throughout the semester. The course is not designed to be a public speaking course, and the speaking assignments are more in the nature of informal reports or relating of experiences. The greater formality and rigidity of speaking in the self-viewing

condition may have contributed to the less change in the self-viewing condition. Future research might profitably use preparation time for the videotaping experience as an independent variable. A person who views himself talking informally in a group discussion context, without prepared statements, may respond to himself quite differently than one who views himself giving a formal speech. Perhaps different criteria of evaluation are employed by the individual in each case.

Another variable which needs to be studied in future research is the amount of delay between the recording and the self-viewing. The present study used a delay of about two days from recording to the self-viewing. If the self-viewing were done on the same day as the recording, it is possible that the impact would be greater, since the feelings associated with the original speaking experience would be stronger. In addition, this would eliminate the measurement problem for the control group discussed earlier.

One of the more important variables which needs to be explored extensively in the future is related to the self analysis which accompanies self-viewing. Some of the research dealing with self-viewing in psychotherapy suggests that the most effective use of the self-confrontation experience can be accomplished by reflective analysis at various times during the playback. In some studies, the counselor views the tape with the client, and asks questions about feelings, motivations, and attitudes at several points during the playback. Other studies have used comments following and preceding the videotape playback to assist in the self analysis. What kinds

of comments, at what times, and for what types of students achieve greatest impact for the self-viewing experience? It is likely that certain conditions will lead to negative results, as occurred in the study by Danet.

It is probable that different personality types will respond differently to various types of self-confrontation experiences. It will be necessary in the future to analyze the impact of self-viewing for different types of students, in order to determine which students should not be subjected to this experience, and under what conditions, for those individuals who can benefit from the experience, will the most benefit be derived.

Finally, the present study employed four self-confrontation experiences, with the impact of each viewing measured by the rating scales, in order to determine the impact of self-viewing over time. It is important to note that the only significant effects on the self-concept in the self-viewing condition occurred after the fourth, and last, self-viewing. More studies dealing with repeated self-confrontations over various time periods need to be initiated. In addition, process studies which are concerned with the continuous process of self-viewing and changes in the awareness of the self during the self-confrontation need to be done to find out what aspects of the self-viewing make the greatest impact on the student, which aspects make little or no impact, and which aspects make a negative impact on the student.

With such a powerful tool for self-analysis now within the reach of almost every teacher, either for his own use or for use with his students, it is important that answers to some of the questions suggested by the few studies already completed here be found.

FOOTNOTES

[1]D. Krech, R.S. Crutchfield and E.L. Ballachey. Individual In Society (New York: McGraw-Hill, 1962), p. 83.

[2]G.H. Mead. Mind, Self and Society (Chicago: U. of Chicago Press, 1934).

[3]W.F. Whyte. Street Corner Society: The Social Structure of an Italian Slum (Chicago: U. of Chicago Press, 1943).

[4]R.J. Dieker and S.E. Jones, "The Effect of Reinforcement on Speech Behavior and Course-Related Attitudes," paper presented at Speech Association of America convention, Chicago, 1966.

[5]Self-viewing is used in this proposal to indicate the viewing of the self on video-tape after the speech has been recorded. This distinguishes it from self-monitoring, which is done simultaneously while a speech is being given.

[6]K.D. Frandsen, C.E. Larson and M.L. Knapp, "Simulation and Self-Confrontation in Interpersonal Communication," Educational Broadcasting Review, II (April, 1968), 18-23.

[7]Ibid., p. 22.

[8]A.G. Hirschfeld, "Utilization of Video Taped Speeches for Self-Analysis in a Fundamentals of Speech Course," Speech Monographs, XXXIII (1966), 227.

[9]Ibid.

[10]G.H. Moore, E. Chernell, and M.J. West, "Television as a Therapeutic Tool," Arch. Gen. Psychiat., XII (1965), 817.

[11]N. Kagan, D.R. Krathwohl, and R. Miller, "Stimulated Recall in Therapy Using Videotape--a Case Study," J. Counsel. Psychol., X, (1963), 237,

[12]H.S. Boyd and V.V. Sisney, "Immediate Self-Image Confrontation and Changes in Self-Concept," J. Consult. Psychol., XXXI (1967), 291.

[13]B.N. Danet, "Self-Confrontation in Psychotherapy Reviewed," Am. Journ. of Psychotherapy, XXII (April, 1968), 245-257.

[14]Ibid., 254.

[15]M.H. Kuhn and T.S. McPartland, "An Empirical Investigation of Self-Attitudes," American Sociological Review, 1954, 19, 68-76.

[16]E.M. Berger, "The Relation Between Expressed Acceptance of Self and Expressed Acceptance of Others," Journal of Abnormal and Social Psychology, 1952, 47, 778-782.

[17]Roger Brown. Social Psychology (New York: The Free Press, 1965), pp. 649-653.

[18]F.R. Guthrie. The Psychology of Human Conflict (New York: Harpers, 1938).

[19]Krech, Crutchfield and Ballachey, op. cit., pp. 125-126.

[20]Don M. Wolfe. The Image of Man in America (Dallas: Southern Methodist University Press, 1957), p. 373.

[21]C.E. Osgood, G.J. Suci and P.H. Tannenbaum. The Measurement of Meaning (Urbana: U. of Illinois Press, 1957), pp. 90-97.

[22]E.F. Lindquist. Design and Analysis of Experiments in Psychology and Education (Boston: Houghton Mifflin Co., 1953).

[23]B.J. Winer. Statistical Principles in Experimental Design. (New York: McGraw-Hill Co., 1962), p. 77.

[24]See Lindquist, op. cit., p. 9-10.

[25]The terminology used in describing the results follows that of Lindquist, op. cit.

"Simple" effect: "We will call the effect of a given treatment at a given level the 'simple' effect of the treatment." (p. 122)

Main effect: "The average effect of the treatment at all levels will be called the 'main' effect of the treatment." (p. 122)

Interaction: "The observed interaction for the experimental sample is measured by the difference between the differences between treatment means for the two levels." (p. 124). In the present study, a significant interaction between self-viewing and time would indicate that the differences between the means over time in the self-viewing groups were significantly different from the differences between means over time in the control group. In other words, the subjects in the self-viewing group were responding differently over time from the subjects in the control condition.

APPENDIX A

SPEAKING ASSIGNMENTS

Speech Assignment 1

The values we hold and the values of others determine much of what occurs in an interpersonal communication situation. Our verbalizations reflect our values, and our values are inferred from our verbalizations. The purpose of this assignment is to increase our awareness of the function of one of our values as it affects our behavior, and to increase our understanding of the development and organization of values in others. Through this awareness and understanding, our abilities to predict our own behavior and that of others should improve.

Describe some value you hold, telling how it developed, how it has changed, and how you would like to change or maintain the value in the future. Some questions to help direct your thinking might be:

What specific incidents do you remember which helped to form and develop the value?

What persons were most influential in determining the value?

What are some specific incidents which changed or modified or reinforced your value recently?

What are some relationships between this value and some other values you hold?

How does this value affect your behavior in interpersonal communication?

How does the value influence the responses of others to you?

Do you want to maintain this value, and if so, why? If not, why not?

Time: 5-7 minutes.

SPEECH ASSIGNMENT 2

Many of the values we hold and interpersonal speech behaviors which we practice are rooted in important, usually emotional, experiences in our past which gave us new perspectives of ourselves or of our relationships to others. The full power of these experiences are frequently not realized until we have explored them by verbalizing them to ourselves and to others. At times the experiences have provided us with new courage or confidence, and at times the experiences may have resulted in confusion and fear. In either case, verbalizing the experience may assist us in understanding the motivations of our behaviors, and perhaps may help release us from influences which have been retarding our growth and keeping us from developing into the kind of persons we would like to become. In some cases, verbalization of the experience may help to release even greater power which was lying dormant, which we did not realize we possessed.

In this assignment, you should select some moment in your life when you felt some growth--when something happened to change your behavior or your outlook on yourself or others in some way--and describe the incident and impact in detail. It may have been as dramatic as a death in the family, a personal failure or accomplishment, or a severe accident or sickness. It may have been somewhat less dramatic, but with a strong impact on your life, such as a farewell, a word from someone you respected, being placed on probation, or being accepted by an individual or a group. It may have been a moment shared with a person who offered a different viewpoint or who was from a different culture when you learned something new about your own values or capabilities. Perhaps it was a moment by yourself, when for one reason or another, you stopped and reassessed your life and decided to change in some way. Whether the moment was pleasant or unpleasant, it was probably an emotional experience if the impact had a very lasting effect.

Some questions to help you think about this assignment might be:

What moment in your life can you remember when the steady, slow growth rate, which usually occurs day by day, was interrupted by a sudden leap, a new insight, or perhaps a new barrier?

What events led up to the moment when you experienced this change?

What specific feelings were associated with the growth that occurred?

How did the change affect your communicative behavior or your relationships with people?

Describe in enough detail so that we can understand the impact of the moment, what led up to it, and what were the lasting effects.
Time: 5-7 minutes.

SPEECH ASSIGNMENT 3

Each of us has been molded by the influence, either good or bad, of people who have played significant roles in our lives. We tend to think about ourselves and value ourselves as we interpret the responses of others to us as being favorable or unfavorable. This influences, then, the way we communicate with people--both those who are doing the influencing and all other people with whom we come in touch. Frequently the judgments of just a few persons, perhaps one in particular, will have the determining influence on who we think we are and what we think we can become. Feelings of self-confidence or feelings of insecurity and worthlessness may have deep roots in our past or present relationships with people whom we consider important.

In other words, we tend to accept the lables that others give to us and we describe ourselves or think about ourselves as we believe others describe or think about us. People have committed suicide because they accepted the judgments of others regarding their self-worth. People have also lived happy and successful lives because of more positive judgments and labels. Some people are capable of more objectively viewing the influence of others, can verbalize to themselves and others about the social impact on their lives, and thereby can bring under control the intellectual and emotional impact of these experiences.

In this assignment, you are to describe the impact that some person or persons have made upon you because of the way you were evaluated, labeled, accepted or rejected by these persons. The impact may have had desirable or undesirable results; it may have happened years ago or it may have been relatively recent; in any event, it had some influence on your development as a human being and how you think about yourself.

Some questions to help you think about this assignment might be:

What kind of relationship did you have with the person who had the impact on you?

In what ways did the person indicate his judgments concerning you?

How did you respond to the person as a result of these judgments?

How do you think about yourself as a function of this experience?

How does this impact influence your communication with others now?

Time: 5-7 minutes.

SPEECH ASSIGNMENT 4

We are all aware, to greater and lesser degrees, of the responses others make to us. We also sometimes will ask ourselves why a person responded to us as he did. Seldom, however, do we critically analyze ourselves in terms of the impact we make on other people, and why people react to us as they do. While we don't want to be the type of person who is constantly worrying about what others think of him, we must be sensitive to our own behavior in relations to how people respond to us if we wish to improve our relationships with others. For example, if I am concerned about the fact that others do not enjoy talking with me for any length of time, I must be willing to question my own attitudes, behaviors and statements to find out what is causing the rejection. Similarly, if I am quite capable of meeting people and forming close friendships easily, knowing why I am able to do this should enable me to utilize my powers better, and perhaps help others to do so.

In this assignment, you are asked to describe the impact you make on others at the present time. Previous speeches have dealt with some of your past experiences with people; this speech should deal with your present relationships with people. In other words, how do different types of people respond to you? In addition, what is it in your behavior that causes people to react to you as they do? Critically evaluate your ability (and perhaps your desire) to relate to people.

To help determine the impact you have on others, interview at least three people, asking them about their reactions to you. Attempt to interpret the non-verbal, as well as the verbal, responses of others. You know that some people will avoid telling you anything negative about yourself, some will attempt to avoid answering your questions, and some will feel obligated or motivated to tell you many good things about yourself, many of which may not be true.

You may also utilize whatever responses you have noticed from other students in this class to you, either directly or indirectly, as part of this assignment. One of the difficulties you will find related to this assignment is the fact that you <u>interpret</u> the responses of others, and as a result, you are bound by your own perceptions in analyzing the responses of others. While you can never escape the distortions of your own perceptions, you can minimize some of the distortions by observing behaviors carefully before evaluating the behaviors and by talking with people to check your own perceptions.

Time: 5-7 minutes

APPENDIX B
SELF-RATING QUESTIONNAIRE

Directions

Name _____
Date _____
Section _____ Instructor _____

On the following page, you are asked to rate yourself as a speaker. Please indicate your judgment of yourself on the scales listed by placing a check mark on each scale. For example, here is a single scale:

Rat yourself as a speaker on the following scale:

Skilled: ____: ____: ____: ____: ____: ____: ____: Unskilled

If you feel that you are, in general, extremely skilled, you would place a check mark in the space closest to the word "skilled." In general, consider the posisitions on the above scale to represent the following judgments:

Skilled:

extremely skilled

quite skilled

slightly skilled

neither skilled nor unskilled; I can't choose one alternative over the other; this scale doesn't apply

slightly unskilled

quite unskilled

extremely unskilled

Unskilled:

Be sure to put one check mark, and only one, along each scale.

Do not omit any scales.

Please rate yourself as a speaker on the following scales:

Wise: ___: ___: ___: ___: ___: ___: ___: Foolish

Forceless: ___: ___: ___: ___: ___: ___: ___: Forceful

Unpleasant: ___: ___: ___: ___: ___: ___: ___: Pleasant

Authoritative: ___: ___: ___: ___: ___: ___: ___: Unauthoritative

Uninteresting: ___: ___: ___: ___: ___: ___: ___: Interesting

Successful: ___: ___: ___: ___: ___: ___: ___: Unsuccessful

Safe: ___: ___: ___: ___: ___: ___: ___: Dangerous

Strong: ___: ___: ___: ___: ___: ___: ___: Weak

Important: ___: ___: ___: ___: ___: ___: ___: Unimportant

Bad: ___: ___: ___: ___: ___: ___: ___: Good

Gracicus: ___: ___: ___: ___: ___: ___: ___: Crude

Bold: ___: ___: ___: ___: ___: ___: ___: Timid

Please check how you would like to be as a speaker:

Wise: ____: ____: ____: ____: ____: ____: ____: Foolish

Forceless: ____: ____: ____: ____: ____: ____: ____: Forceful

Unpleasant: ____: ____: ____: ____: ____: ____: ____: Pleasant

Authoritative: ____: ____: ____: ____: ____: ____: ____: Unauthoritative

Uninteresting: ____: ____: ____: ____: ____: ____: ____: Interesting

Successful: ____: ____: ____: ____: ____: ____: ____: Unsuccessful

Safe: ____: ____: ____: ____: ____: ____: ____: Dangerous

Strong: ____: ____: ____: ____: ____: ____: ____: Weak

Important: ____: ____: ____: ____: ____: ____: ____: Unimportant

Bad: ____: ____: ____: ____: ____: ____: ____: Good

Gracious: ____: ____: ____: ____: ____: ____: ____: Crude

Bold: ____: ____: ____: ____: ____: ____: ____::Timid

✓

APPENDIX C

DEVELOPMENT OF THE SEMANTIC DIFFERENTIAL FOR MEASURING THE SELF-CONCEPT

Sixty-four freshmen and sophomores at the University of Illinois during spring term, 1966, filled out a semantic differential scale on how they rated themselves as speakers. The scale contained 24 bipolar adjective pairs, taken from Osgood's original scale, from Berlo and Lemert's scales of source credibility, and some which were devised for this analysis because of their applicability to the rating of the self. The results of these ratings were then subjected to factor analysis, with a varimax factor rotation. The criterion used to determine the factors to be utilized in the present study was that at least three adjective pairs were needed to define a particular factor. In addition, each adjective pair to be utilized to define a factor had to correlate at least .50 with the factor. Of the five factors which emerged, four of the factors met the criteria specified, and the three adjective pairs loading highest on each factor were used to define the factor.

The four factors, with the factor loadings of each adjective pair, are listed in the table below. The remaining adjective pairs were discarded from the questionnaire, and only the twelve adjective pairs listed below will be employed in the present study. The twelve pairs will be randomly arranged in the questionnaire, and the positive-negative order of the adjectives will also be randomly determined.

Table 1. Adjectives used to define each factor of the ratings of the self-concept and factor loadings based on varimax factor rotation

Adjective pair	Factor 1 (wiseness)	Factor 2 (forceful-ness)	Factor 3 (pleasant-ness)	Factor 4 (authoritative-ness)
"wise-foolish"	.74*	.21	-.02	.20
"important-unim-portant"	.73*	-.16	.26	.19
"interesting-uninteresting"	.69*	.33	-.21	-.13
"forceful-forceless"	.42	.73*	.03	-.19
"good-bad"	.32	.72*	-.37	.02
"successful-unsuccessful"	-.16	.68*	.22	.15
"pleasant-unpleasant"	.30	.14	.73*	.01
"safe-dangerous"	-.10	-.17	.77*	.13
"gracious-crude"	-.42	-.04	.59*	.12
"authoritative-unauthoritative"	-.32	.08	.17	.71*
"strong-weak"	-.24	-.36	.35	.65*
"bold-timid"	-.12	-.49	-.13	.68*

*indicates adjectives used to define the factor indicated.

APPENDIX D

ANALYSIS OF VARIANCE
TABLES FOR SELF RATINGS

Table 1. Summary of the Three Way Analysis of Variance for the D^2 Scores on Four Factors of the Self Concept.

Wisdom Factor

Source of Variance	DF	MS	F	P
Between				
Class (A)	2	1127.18	.40	n.s.
Self-viewing (B)	1	368.18	1.15	n.s.
AB	2	809.08	2.52	n.s.
Error Between	107	321.21		
Within				
Time (C)	4	1027.27	11.05	<.01
AC	8	115.30	1.24	n.s.
BC	4	291.66	3.14	<.05
ABC	8	81.69	.88	n.s.
Error Within	428	92.93		

Forcefulness Factor

Source of Variance	DF	MS	F	P
Between				
Class (A)	2	791.47	1.69	n.s.
Self-viewing (B)	1	1724.64	3.70	n.s.
AB	2	1168.05	2.50	n.s.
Error Between	107			
Within				
Time (C)	4	1214.92	9.00	< .01
AC	8	190.59	1.41	n.s.
BC	4	443.60	3.29	.05
ABC	8	179.34	1.33	n.s.
Error Within	428	134.95		

Pleasantness Factor

Source of Variance	DF	MS	F	P
Between				
Class (A)	2	141.49	.53	n.s.
Self-viewing (B)	1	16.96	.06	n.s.
AB	2	84.94	.32	n.s.
Error Between	107	264.80		
Within				
Time (C)	4	440.45	7.88	< .01
AC	8	65.08	1.16	n.s.
BC	4	120.63	2.16	n.s.
ABC	8	89.69	1.60	n.s.
Error Within	428	55.91		

Authoritativeness Factor

Source of Variance	DF	MS	F	P
Between				
Class (A)	2	895.06	1.81	n.s.
Self-viewing (B)	1	131.73	.27	n.s.
AB	2	220.00	.44	n.s.
Error Between	107	495.50		
Within				
Time (C)	4	2061.09	17.85	$<.01$
AC	8	37.93	.33	n.s.
BC	4	338.43	2.93	$<.05$
ABC	8	184.04	1.59	n.s.
Error Within	428	115.48		

Table II. Summary of the Three-Way Analysis of Variance for the Actual Self Ratings on Four Factors of the Self-Concept.

Wisdom Factor

Source of Variance	DF	MS	F	P
Between				
Class (A)	2	2.57	.12	n.s.
Self-viewing (B)	1	87.95	4.04	$<.05$
AB	2	26.46	1.21	n.s.
Error Between	107	21.79		
Within				
Time (C)	4	86.01	19.50	$<.01$
AC	8	7.91	1.79	n.s.
BC	4	19.94	4.52	$<.01$
ABC	8	3.08	----	n.s.
Error Within	428	4.41		

Forcefulness Factor

Source of Variance	DF	MS	F	P
Between				
Class (A)	2	2.33	.10	n.s.
Self-viewing (B)	1	158.22	6.58	$<.05$
AB	2	54.41	2.26	n.s.
Error Between	107	24.03		
Within				
Time (C)	4	79.48	14.56	$<.01$
AC	8	9.39	1.72	n.s.
BC	4	28.15	5.16	$<.01$
ABC	8	4.56	.84	n.s.
Error Within	428	5.46		

Pleasantness Factor

Source of Variance	DF	MS	F	P
Between				
Class (A)	2	.84	.04	n.s.
Self-viewing (B)	1	14.91	.68	n.s.
AB	2	65.90	3.03	n.s.
Error Between	107	21.78		
Within				
Time (C)	4	50.11	12.43	<.01
AC	8	1.19	.30	n.s.
BC	4	3.28	.81	n.s.
ABC	8	3.37	.84	n.s.
Error Within	428	4.03		

Authoritativeness Factor

Source of Variance	DF	MS	F	P
Between				
Class (A)	2	12.63	.45	n.s.
Self-viewing (B)	1	130.33	4.59	<.05
AB	2	10.00	.35	n.s.
Error Between	107	28.37		
Within				
Time (C)	4	91.56	18.74	<.01
AC	8	4.44	.84	n.s.
BC	4	12.22	2.30	n.s.
ABC	8	3.98	.75	n.s.
Error Within	428	5.31		

Table III. Summary of the Three-Way Analysis of Variance of Ratings of both Self and Observer at Time Five on Four Factors.

Wisdom Factor

Source of Variance	DF	MS	F	P
Between				
Class (A)	2	95.68	7.92	<.01
Self-viewing (B)	1	156.87	12.98	<.01
Rater (C)	1	26.92	2.23	n.s.
AB	2	89.98	7.45	<.01
AC	2	32.27	2.67	n.s.
BC	1	3.84	.32	n.s.
ABC	2	23.93	1.98	n.s.
Error	101	12.08		

Forcefulness Factor

Source of Variance	DF	MS	F	P
Class (A)	2	52.79	4.025	$<.05$
Self-viewing (B)	1	297.50	22.686	$<.01$
Rater (C)	1	16.46	1.255	n.s.
AB	2	113.17	8.630	$<.01$
AC	2	47.15	3.596	$<.05$
BC	1	7.70	.587	n.s.
ABC	2	19.30	1.472	n.s.
Error	101	13.11		

Pleasantness Factor

Source of Variance	DF	MS	F	P
Class (A)	2	18.47	1.515	n.s.
Self-viewing (B)	1	50.86	4.172	$<.05$
Rater (C)	1	17.00	1.395	n.s.
AB	2	53.63	4.4000	$<.05$
AC	2	14.37	1.179	n.s.
BC	1	3.29	.270	n.s.
ABC	2	26.46	2.171	n.s.
Error	101	12.18		

Authoritativeness Factor

Source of Variance	DF	MS	F	P
Class (A)	2	80.08	5.746	$<.01$
Self-viewing (B)	1	106.67	7.654	$<.01$
Rater (C)	1	.04	.002	n.s.
AB	2	45.70	3.279	$<.05$
AC	2	41.38	2.969	n.s.
BC	1	8.14	.584	n.s.
ABC	2	15.98	1.146	n.s.
Error	101	13.93		

Table IV. Summary of the Three-Way Analysis of Variance of Ratings of both Self and Instructor at Time Five on Four Factors.

Wisdom Factor

Source of Variance	DF	MS	F	P
Class (A)	2	2.42	.154	n.s.
Self-Viewing (B)	1	46.74	2.969	n.s.
Rater (C)	1	59.54	3.781	n.s.
AB	2	12.91	.820	n.s.
AC	2	15.82	1.004	n.s.
BC	1	58.49	3.715	n.s.
ABC	2	8.44	.536	n.s.
Error	101	15.74		

Forcefulness Factor

Source of Variance	DF	MS	F	P
Class (A)	2	19.42	1.191	n.s.
Self-viewing (B)	1	69.87	4.287	$<.05$
Rater (C)	1	75.93	4.659	$<.05$
AB	2	30.81	1.890	n.s.
AC	2	16.96	1.040	n.s.
BC	1	136.09	8.350	$<.01$
ABC	2	7.90	.484	n.s.
Error	101	16.29		

Pleasantness Factor

Source of Variance	DF	MS	F	P
Class (A)	2	27.60	1.904	n.s.
Self-viewing (B)	1	9.59	.661	n.s.
Rater (C)	1	15.92	1.099	n.s.
AB	2	28.45	1.963	n.s.
AC	2	28.91	1.995	n.s.
BC	1	4.92	.340	n.s.
ABC	2	15.94	1.100	n.s.
Error	101	14.49		

Authoritativeness Factor

Source of Variance	DF	MS	F	P
Class (A)	2	1.88	.085	n.s.
Self-viewing (B)	1	57.85	2.616	n.s.
Rater (C)	1	193.27	8.743	$<.01$
AB	2	13.57	.614	n.s.
AC	2	18.33	.829	n.s.
BC	1	31.09	1.406	n.s.
ABC	2	.58	.026	n.s.
Error	101	22.10		